

Available online at www.sciencedirect.com**ScienceDirect**

Procedia - Social and Behavioral Sciences 192 (2015) 339 – 345

Procedia
Social and Behavioral Sciences

2nd GLOBAL CONFERENCE on LINGUISTICS and FOREIGN LANGUAGE TEACHING,
LINELT-2014, Dubai – United Arab Emirates, December 11 – 13, 2014

Semantic Primitives and Conceptual Focus

Pesina S.^{a*}, Solonchak T.^b

^a*Metallurgov Pr., ap.11 flat 54, Magnitogorsk, Chelyabinskaya region, 455000 Russia*

^b*Aprelsky St., 27, Magnitogorsk, Chelyabinskaya region, Russia, 455021.*

Abstract

From the communicative point of view the concept is a cognitive model according to which the speaker uses a certain language unit in one or another way. The core of the concept has been named “the conceptual focus”. It includes the most stable central substantive components which are universal for the specific language community. Along with images, emotional and sensational constituents these cover the main essence of the concept content.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of Academic World Research and Education Center.

Keywords: concept; conceptual core; frame; conceptual focus; semantic primitives.

1. Introduction

A lot of thoughts that exist in our consciousness never get verbalized, because they are not for communication, and probably, there are no available linguistic means to express them. One can even believe that these thoughts have significant influence on human behavior, but this cannot be verified, and one may only make indirect judgments. That is why we are particularly interested in the concept expressed by linguistic means.

The verbalized concept points at the meaning: the meaning is the concept caught by a sign. Stopping for a second at this definition, which became classical in the linguistic literature, we need to note that it is actually not fully correct. If the sign is at least a bilateral essence (in any case, in its classical understanding it includes the form and the content), then the concept being already a mental essence is further “caught” by the content. The proper “catching” moment is probably related to «learning of the Existence» in the phenomenological philosophy concepts (in particular, Heidegger and Jaspers); in its turn, this can be a consequence of the “aggressive” etymology of the German word «notion», which literally means «catch» (greifen).

* Pesina S. Tel.: +79048100806; fax: +7(3519)381669.

E-mail address: spesina@bk.ru

This definition of the concept is consonant to the medieval thinkers who understood concepts as acts of catching, understanding and learning of the senses during verbal discussion and conflicts of interpretations. The “catching” acts are expressed in speech, which according to Abelard, are perceived as «a concept in the listener’s soul» or as an idea of an opus». He believed that concepts are not linked by the mind forms; they are derivatives of the elevated spirit or the wit capable of creative reproduction or collection, senses and thoughts as a universal thing, a combination of objects and speeches, which contains the mind as its part» (Abelard, 1995).

Although sometimes the language is not needed for creation of concepts, its role is evident in the internal organization of the communication subjects. The language is used for alignment, and therefore, for construction of concepts, to some extent. To be able to “catch” a thought, it must be also “volatile”. And such word must be “caught flying” too. Thus, there is double catching: catching of a thought by a word and catching of the flying word by the thought.

The communication process requires expression of concepts by linguistic means which often differ. Moreover, due to the complex structure no concept can be represented in speech in full. This is due to the fact that cognition has individual nature, in the same way as formation of the proper concept. Knowing a language means that the person also knows how to translate thoughts into word chains and vice versa. Therefore, the human mind may contain a specialized module responsible for such ability.

We need to mention that the word is not a complete representation of a concept – with its meaning, it transmits a few main conceptual attributes relevant for the message, and “transmission” of which is the task for the speaker. The rich content of the entire concept may be theoretically expressed only by combination of language means, while each reflects only its part. Therefore, the word is the means of access to conceptual knowledge. The language sign can be similar to a switch – it “switches” the concept in our consciousness, activating it in general and “launching” it into the thinking process. There follows the process of its inclusion into a certain context.

1.1. The Concept and a Word Meaning

The language is undoubtedly one of the main tools of the ambient world cognition, conceptualization and categorization. The role of the language is to provide internal organization of the subjects to be communicated. The concepts of the lexicon that have received a linguistic form and denotation are used for accumulation and further operation of the contents of information quanta about the world. They help to consolidate and generalize all the information that arrives via other channels: vision, hearing, taste, tactile senses and smelling. A certain space of meaning emerges, i.e., the linguistically fixed knowledge of the world which integrates the national and cultural experience of the specific linguistic community. The world of speakers of this language is formed, i.e., the linguistic view of the world as the complex of knowledge reflected in the vocabulary, phraseology, grammar, syntax.

However, speakers of different languages may see the world differently. The world is largely depicted, i.e., created depending on the conceptual system that is reflected in the language. Therefore, the language does not remain indifferent to the process of objects denotation and notions expression. Although there are variations in the conceptual structures of the consciousness, the relevant world images are much closer in the principal features. People fill the language units with the content that is dictated by the world structures and human activity in the world, which are stored in their heads as conceptual structures of consciousness. That is why we can only partially agree with the hypothesis of linguistic relativity (avoiding its extreme construction), taking into account the fact that we see, hear and generally perceive the ambient world in this certain way, and not differently, mainly thanks to the fact that our choice in its interpretation is predetermined by the cultural and linguistic habits of the specific society.

Different language can solve the task of segmentation of the flow of our sensorial and conceptual experience in absolutely diverse ways. Each language system «sets» its own ontology, i.e., the combination of referent objects which attract our attention and our thoughts in the cognition process. Thus, adoption of one or another language system means something much larger than the agreement on the ways of external expression of our knowledge. We never receive the reality directly, the world of objects is always given via a certain conceptual system, through a complex of linguistic meanings. The worlds created by man are, first of all, language worlds (or at least, the worlds expressed in linguistic form). Moreover, no universal linguistic worlds exist.

Being in a broader context, we have to point out that the ambient world is structured according to the common

objective laws which often do not depend on nationality or social status of specific persons. The thinking processes also occur according to common laws; this is related to the biological characteristics of the brain and nervous structures. Anyway, different cultures and traditions describe their world in different ways, and in principle, in an individual consciousness the concept cannot be free from the cultural and national specific features.

It is typical for a human society to set moral and ethical norms related to the most important basic concepts on various development levels. Dependence of universal concepts on linguistic and culturological factors results in their different verbalization and fixation in diverse meanings in different languages. The national experience features determine the national peculiarities of knowledge and, respectively, the national particularities of the world image for representatives of individual linguocultural communities.

The language could not be a means of communication, if it were not related to the conceptual world image, because it denotes individual elements of the conceptual world image, and that is expressed in creation of words and links between words and sentences.

So, linguistics has the full right to use the philosophic understanding of the concept as a potential, an undivided cluster of senses, as «obscure something» and «nothing» at the same time, as ideas which gain their existence through the infinity of updates. Considering the above, the essential characteristics of concepts can be presented as follows: the concept as the central unit of cognitive linguistics is an emotionally and culturally marked sense, a mental essence responsible for shaping, processing, storage and transfer of knowledge; therefore, the concept contains emotional, expressive, evaluative components; the concept has nation-specific features, it is the main cell of culture; the concept is presumably structured: it may be stratified; it may be of various types and various complexity; the concept has a soft probabilistic structure, its boundaries are indefinite and mobile; as an image, but not as a linguistic structure, the concept may be equal to subjective perception of the reality in a certain time period, however, it supposedly has the core, the main and the peripheral areas; the core area which is common for the bearers of a specific language and culture ensures the communication processes; this core area has national and cultural associations; with the lapse of time, the concept undergoes modifications due to the changing world image; the best access to concepts, their better understanding and «transfer» occur through their verbalization, i.e., through the language.

1.2. Lexicalized Concepts and Semantic Primitives

G. Leibnitz wrote that an infinite multitude of notions could be obtained through combination of several elements, because nature aims at achievement of the maximum effect using the minimum number of elements, i.e., to act in the simplest way. Besides, «if we do not create an alphabet of the necessary notions which cannot be explained by any interpretations, we will not be able to provide correct descriptions of the meanings expressed by the language, because without this critical tool we will be just translating some unknowns to other» (Leibnitz, 1983: 456).

These ideas have been supported and at present implemented in the papers by Wierzbicka, as well as by Jackendoff, Apresyan etc. These studies aimed at searching of the common fundamental base of the language provided for description of lexicalized concepts and, consequently, semantic primitives discovered during lexical analysis of language systems. According to this idea, for creation of the conceptual system it is necessary to assume that there exist primary concepts from which all other concepts develop. At formation the concepts are essences which cannot be analyzed or disintegrated (i.e., probably, they exist as *gestalts*). Being included into the conceptual system and confirmed as its part, the concept is influenced by other concepts and undergoes updating and modification.

Thus, semantic primitives act as the base for formation the person's conceptual system which is unique and, at the same time, universal in many aspects. Besides, the concept is flexible and mobile, like the world that surrounds the person. The number of proposed semantic primitives varies from a few units (Jackendoff identifies seven units (Jackendoff, 1983) up to several dozens (Wierzbicka, 1985) or hundreds (Apresyan, 1995). In the last decades, the set of the main concepts of the human society was not subject to significant alterations, but their general volume changes, as the time passes.

Along with quantitative reduction of components, their qualitative simplification is possible. A. Wierzbicka believes that for drafting of vocabulary definitions one can use the «reductive analysis» method which provides for

definition of all concepts via a set of further indefinable semantic attributes. She means postulation of the limited set of «semantic primitives» whose configurations must determine interpretations of all lexical and grammatical meaning of the natural language. «If there is a certain number of notional primitives which can be understood directly (not via other notions), then these primitives can act as the firm base for all other notions; an infinite number of new notions can be derived from a small number of semantic primitives». In over thirty years of intensive searching, Wierzbicka and her colleagues identified a set of several dozens of notions, which could be viewed as semantic primitives. This multitude is underlying the processes of thinking and communication and does not coincide with the set of semantic universals. The language-specific configurations of these primitives reflect the diversity of cultures (Wierzbicka, 1996: 296-297).

Jackendoff also thinks that the capabilities of the conceptual system are also determined by the innate rules of well-formedness, and the rules of conclusions and guesses ensure links between conceptual structures. Every word of the language is associated in the consciousness with a certain conceptual primitive, which can produce more complex conceptual structures. According to the figurative phrase by the scientist, concepts are «rather a set of Lego bricks than modelling clay» (Jackendoff, 1983: 191).

As an example, we provide interpretation of lexemes of the lexical-semantic field «human body», although this category is one of the most complicated to be explained by semantic primitives, because their interpretations represent a somewhat closed circle. This happens, because it is unclear which base is semantically more preferable – physiology or anatomy, form or function (for example, *eyes* and *ears*). After numerous experiments with semantic primitives the author came to the following interpretations of these words which she named semantic invariants (Wierzbicka, 1980).

X 's eyes = parts of X 's body in the upper part of X 's face which can open and close and which can tell X something about the world;

X 's face = front part of X 's head, which can tell one about X.

As we can see, interpretation of the concept *eyes* in comparison with the concept *face* is special only because of presence of functional components *open and close* and the grammatical category of plural number.

We need to note that it is dubious whether some semantic units should be recognized as «primary elements», because in the general language theory at the level of basic units of the sense competition is inevitable for the right of a certain unit to be selected as an element and to be included into the meta-language. If one strictly follows the rule to use only primitive atoms in the interpretations, then the obtained descriptions of semantics will be too much complicated. So, the real examples of interpretations given in Wierzbicka's papers are often perceived with difficulty, while there are no strict syntactic rules of formation of meta-language expressions.

Although the list of semantic primitives relates to the neutral vocabulary that has the most solid roots in the language and the culture (for instance, «to know», «to want» etc.), it brings in its semantic add-ons due to diverse associations and polysemanticity. On the whole, lexicographic value of the «universal meta-language» looks doubtful in terms of accuracy of description of word meanings, while the author believes that the meanings of words can be described with «laser precision». In real speech, native speakers use and perceive words very freely, because the language as a system gives them such opportunity.

In general analysis proposed by Wierzbicka is lengthy and inconvenient: tedious definitions are not functional in terms of lexicographic practice. Anyway, mentioning A.Wierzbicka' contribution into the lexical semantics, we need to stress that her papers are remarkable as patterns of lexical semantic epistemology. Developing her own methodology, the researcher justifies the necessity of the introspection method and the ways of its perfection; her books are unique as «models of reflection aimed at her reflection, i.e., patterns of transformation of unclear unexplainable knowledge into an explainable one» (Frumkina, 2001: 78-79). Wierzbicka's studies at the crossing point of cognitology, ethnopsychology and culturology show how psycholinguistic analysis can go beyond the frames of «pure» linguistics in order to find an exit to the national mentality and culture. The use of semantic primitives undoubtedly allows the researchers to come closer to the minimal meaningful senses, which, in our opinion, finally explain the essence of the lexicon functioning. Besides, linguists are yet approaching the elementary hidden attributes which are so essential for interpretation of words.

We need to mention Wierzbicka's experience in interpretation of the first meanings of polysemantic words. These meanings are not always presented at the everyday consciousness level in dictionaries. The average language

speaker level provides for availability of clear intuitively understandable definitions using the simplest semantic components which would not require interpretation.

Similar units underlie the interpretations presented in the papers by Apresyan. The researcher defines the main notions (meta-language and semantic primitives) in the following way: the meta-language dictionary is reduced radically, so that only two word types remain: semantic primitives, i.e., indefinable words which do not allow further semantic reduction, and semantically more complex words which are reduced to primitives in one or more steps. «The words of the natural language that are selected to be primitives, – these are always “forefront” words that are mostly rooted in the language and the culture. They serve the major number of pragmatic situations». However, true primitives are like semantic quarks – the senses which exist in the reality and never get materialized in the words of natural languages, for instance, 1) physical perception (vision, hearing etc.) – «to perceive»; 2) physiological conditions (hunger, thirst etc.) – «to feel»; 3) physical actions and activity (to work, to repose etc.) – «to do» etc. (Apresyan, 1995).

1.3. The Conceptual Focus and the Notion

As shown above, the most important prototypic figurative and emotionally-sensual factors which constitute linguistic communication layers act as integral images which codify respective concepts creating their core. Our research in the field of interrelationships of notions with adjacent essences show that in many cases the concept core can correspond to an “everyday” notion, equal presentation as perception of essence of an object or a phenomenon at the average language speaker level. We really mean an «everyday/down-to-earth» notion, because the logic notion is devoid of individual sensual image, figurativeness, subjective add-ons which may be parts of the concept core.

We need to note that the notion aims at identifying the essence; it is a classological form that sets the class of objects. Being a part of general culture, a universal subjective and individual essence, the concept is multidimensional. Since it is probably structured and has more layers, it is quite obvious that the notion does relate to one layer, but has no relation to the other.

In this paper we name the concept core with the title **conceptual focus**. *Conceptual focus means the most stable central substantive components which are universal for the given language community, along with images and emotionally-sensual constituents, they cover the main essence of the concept content.* A reservation should be made that figurative and sensual constituents must be meaningful for understanding of a specific concept; otherwise they will form its periphery.

Identification of the conceptual focus has principal importance, because it gives an opportunity to imagine and express the essence of the concept. Description of the conceptual focus is valuable, because it helps understand the operating mechanisms of the intellect that participates in communication processes which are based on the principles of economy and prominence, model the concept (as much as the language intuition allows), predict its contents and volume associated with word semantic development (Pesina, Solonchak, 2014).

Furthermore, it makes sense to define the interrelationship between the conceptual focus and the notion. According to the definition, the notion can be a conceptual focus of the concepts which have both abstract and precise contents. Depending on the level of understanding of these essences, the conceptual focus can be presented by a (logical) notion or idea (in another terminology, «everyday/down-to-earth» notion). For example, it is the idea (at the down-to-earth level) and the respective notion (at the scientific level), and not the image, which will be the core of such abstract concepts as *freedom, happiness, will, power* etc., that would not have any images.

Therefore, we point out that a logical notion can compose the conceptual focus as the most stable layer (conceptual core) of the concept which represents generalized abstracted knowledge that is common for the entire ethnolinguistic community. But we have to stress that along with the logical notion, the concept focus can include the everyday notion, which has not only mental, but also figurative and emotionally-sensual components. Besides, as presented above, we distinguish the idea and the notion as proposed focuses of concepts, while the notion reflects understanding of an object or a phenomenon at the level of relation to the dichotomy «true – false».

On the other hand, the logical/scientific notion as the core part of the concept is available only at concepts made of quite accurate true information provided by respective specialists. This conceptual focus is shaped in the thinking

process primarily as reflection of scientific and production activities, because the distinguishing feature of the classic notion is its fundamental aniconia, «pure rationality». Logical notions have not been produced for every phenomenon named by a separate word, because not all objects and phenomena become the subject of common cognition. Many notions are created by logicians, philosophers, exact sciences representatives which face the need to provide a definition to a word relying on a small number of formal differential attributes. But even in this case, it may happen that some information will be available at nonscientific, everyday level.

That is why the core of abstract concepts can be shaped by a logical notion (then these concepts will be especially important in terms of social life, politics, science etc.), as well as by everyday/routine/down-to-earth/naïve one. For instance, it is quite hard to express the focus of the concept of a synchrotron at the everyday level. The wording like «a device which accelerates charged particles» will hardly be completely understandable and will demand further interpretation, and any explanation will go beyond the frames of the concept focus (Pesina, Solonchak, 2014).

The individual sensual image as a critical constituent of the object concept focus is alike with the basic unit of the *universal object code* (Zhinkin). Certainly, the authors analyzed this essence without refraction towards the concept or its core. Studies were performed within the framework of psycholinguistics and were aimed at solving problems related to speech production. So, using radioscopy, Zhinkin proved that the internal organs of pre-articulation, which ensure production of speech with air flow, occupy a certain position until the word is produced (Zhinkin, 1998).

Since our perception of the reality may occur in form of integral images which codify respective concepts, we can conclude that the concept core may be presented as a *universal object code*. This essence ensures rapid access to the contents of concepts and constitutes its brightest visual stable core part. It is important to mention that the *universal object code* does not cover the complete content of the concept focus.

It is quite possible to confirm the notion as well as the *universal object code* by the language of schemes, images, tactile and smelling imprints of reality as the basic part of the concept, because they represent the unity of substantive properties, links and relationships of objects or phenomena. They generalize objects of a certain class using specific general attributes. In this case, the notion identifies what is in common and also decomposes objects, their properties and relationships, assigning the latter to classes depending on their differences. The focus of the concept is the core that is identified both intuitively and logically.

2. Conclusion

Thus, we need to underline that the nature of the conceptual focus, as well as of the concept itself, is mental and image-sensual, but if the concept is verbalized (we deal with such concepts, otherwise we would have no subject of discussion), then the conceptual focus is also implemented in the language. It is pure theory to talk about coincidence of the central part of concepts (conceptual focuses) of different people, because, presumably, basic concepts of bearers of the same language and culture could coincide. However, communication would be actually impossible without such common conceptual focus. Coincidence of the core content of concepts belonging to bearers of the same culture makes identification of nation-specific concepts possible.

The concept is codified in the consciousness both by a notion and by an individual sensorial image which has common features with the basic unit – human *universal object code*. The notional part of the conceptual focus is expressed by an idea or a scientific/logical notion based on the most stable central substantive components which cover the main essence of the concept content.

It makes sense to further review the conditions in which the notion may act as the central part of the concept. For this purpose we need to pay more attention to the nature, structure and functioning of such essences as the notion, the idea, the perception and their relationships with the concept and the meaning.

References

- Abelard P. Dialectics//P.Abelard. Theological Papers. M. : Progress, 1995.
- Apresyan Yu.D. Selected papers: in 2 volumes / Yu.D.Apresyan. – M.: “Russian Culture Languages” school, 1995. – V. 1. Lexical Semantics. Synonymic Language Tools.
- Apresyan Yu.D. Selected papers: in 2 volumes / Yu.D.Apresyan. – M.: “Russian Culture Languages” school, 1995. – V. 1. Lexical Semantics. Synonymic Language Tools.

- Frumkina R.M. Psycholinguistics: university course book. / R.M.Frumkina. – M.: Akademia, 2001.
- Jackendoff R. Semantics and Cognition / R. Jackendoff. – Cambridge, Mass. : MIT Press, 1983.
- Jackendoff R. Semantics and Cognition / R. Jackendoff. – Cambridge, Mass. : MIT Press, 1983.
- Leibnitz G.V. Papers: in 4 volumes. / G.V. Leibnitz; editor, introduction and comments by I.S.Narskiy. – M.: Mysl, 1983. – V. 2. New Experiences in Human Understanding. («Philosophic Heritage» series.)
- Pesina S., Solonchak T. (2014) The Lexical Eidos as an Invariant of a Polysemantic Word // International Science Conference: International Conference on Language and Technology (June 19-20). *World Academy of Science, Engineering and Technology*. International Science Index Vol: 8, No:6, Part XI, Venice, Italy, 2014. – P. 1008-1016.
- Pesina, S., Solonchak, T. (2014) The Sign in the Communication Process // International Science Conference: International Conference on Language and Technology (June 19-20). *World Academy of Science, Engineering and Technology*. International Science Index Vol : 8, No:6, Part XI, Venice, Italy, 2014. – P. 1021-1029.
- Solonchak T., Pesina S. (2014) New Ways of Vocabulary Enlargement // International Science Conference: International Conference on Language and Technology (June 19-20). *World Academy of Science, Engineering and Technology*. International Science Index Vol: 8, No:6, Part XI, Venice, Italy, 2014. – P. 1000-1007.
- Solonchak T., Pesina S. (2014) The Image as an Initial Element of the Cognitive Understanding of Words // International Science Conference: International Conference on Language and Technology (June 19-20). *World Academy of Science, Engineering and Technology*. International Science Index Vol: 8, No:6, Part XI, Venice, Italy, 2014. – P. 994-999.
- Wierzbicka A. Lexicography and Conceptual Analysis / A. Wierzbicka. – Ann Arbor : Karoma publakers, 1985.
- Wierzbicka A. *Lingua mentalis* / A. Wierzbicka. – Sydney etc. : Acad press, 1980.
- Wierzbicka A. Language. Culture. Cognition / A.Wierzbicka ; edited and compiled by M.A.Krongauz, introduction by E.V.Paducheva. – M. : Russkie Slovaki, 1996.